

## **Minnesota Housing Multifamily Design Standards for General Occupancy Rental Housing**

The following design standards apply to all general occupancy rental housing receiving Minnesota Housing Finance Agency (Minnesota Housing) financing for new construction, rehabilitation, and/or adaptive reuse of an existing building. When strict compliance to these standards is not feasible, please contact the Minnesota Housing Staff Architect assigned to the development to discuss whether a waiver is justifiable.

Minnesota Housing encourages sustainable, healthy housing that optimizes the use of cost effective durable building materials and systems and that minimizes the consumption of natural resources both during construction or rehabilitation and in the long term maintenance and operation. We encourage optimizing the use of renewable resources and energy, minimizing damage and impact to the environment, and maximizing the use of natural amenities such as (solar, wind, climate, and orientation) of the development's site.

The following standards are supplemental to basic standards established by applicable building codes, local zoning, and other applicable regulations. Where two standards govern the same condition, conformance to the most restrictive standard is required. Regardless, if the local jurisdiction has adopted or not adopted the Minnesota State Building Code, all site improvements receiving Minnesota Housing financing must be in compliance with the Minnesota State Building Code.

**Purpose:** To ensure rental housing financed by Minnesota Housing is decent quality, energy efficient, functional, sustainable, and effective in reducing long-term maintenance costs.

### **Requirements:**

#### **A. Site**

##### **1. Parking/Drive Lanes/Garages**

- a. Unless stricter zoning requirements apply, parking shall comply with the following minimum requirements:
  - One (1) parking space for each 1-bedroom or larger dwelling unit;
  - Rehabilitation, adaptive reuse type projects, or single-room-occupancy (SRO) dwelling units may have less than one (1) parking space for each dwelling unit. Exact number shall be reviewed/approved by Minnesota Housing on a case-by-case basis; and
  - Parking spaces shall be at least 8'-6" wide except at designated handicapped parking space(s) which shall be in compliance with applicable codes.
- b. Poured concrete curb and gutter at outer perimeter of onsite drive lanes and parking. (Not required for semi-private driveway leading up to attached garage.)
- c. If private garages are provided, they shall conform to the following:

- No more than one attached or detached garage stall per dwelling unit unless in conflict with local zoning regulations;
- Each stall shall be partitioned to the roof with solid material;
- Frost footing required at all attached garages and detached garages larger than 2-stalls; and
- Minimum size requirements:
  - Width: 11'-0" (single stall)  
20'-0" (double stall)
  - Area: 231 sq. ft. (single stall)  
420 sq. ft. (double stall)
  - Overhead door: 9'-0" wide (single stall)  
16'-0" wide (double stall)

## 2. Play Area/Play Equipment

- a. Play area/play equipment is not required if any of the following conditions apply:
  - Development contains only 1-bedroom or smaller dwelling units;
  - For new construction with zero lot-line sites where Minnesota Housing agrees with the Owner/Developer that it is not economically feasible or viable.
  - There is a public park with play equipment within 1,000 feet of the development (measured from the closest property line to the public park as straight line distance, not travel distance), unless they are separated by busy street; or
  - For rehabilitation and/or adaptive reuse projects where Minnesota Housing agrees with the Owner/Developer that it is not economically feasible or viable.
- b. The size of the play area must be provided in proportion to the child population of the development. The child population for each unit shall be computed as follows:

<b>Unit Type</b>	<b>Number of Children in Unit</b>
Efficiency	0
One-Bedroom	0
Two-Bedroom	1.5
Three-Bedroom	3
Four-Bedroom	4.5
(Each additional Bedroom)	(1.5 Children per Bedroom)

Based on the type and number of units in the development, the total development child population can be computed, and the size of the play area should be determined as follows:

- The minimum size of the play area must be 24'-0" x 24'-0". This is good for up to one hundred children in the development. Add four square feet of additional play area per each additional child above one hundred children.

- c. The entire play area must be filled with natural or synthetic protective materials and equipped with reasonable play equipment for the size of the lot. The perimeter shall be designed to keep play area material from spilling, such as curb and/or sidewalk.
- d. The play area and play equipment must be in compliance with equipment manufacturer requirements. The play area does not have to be square or confined to one location as long as minimum play area size is complied with.
- e. Lumber treated with chromated copper arsenate shall not be used for play equipment.
- f. Avoid locating any play area(s) where children are required to cross driveways.
- g. Provide drain tile beneath all permeable play area surface materials with outlet to nearest storm sewer or drainage ditch.
- h. Provide shade, seating, and trash receptacle near all play areas.
- i. Rehabilitation/Adaptive Reuse: Any existing play area/play equipment scheduled to remain shall be in good repair and in compliance with all applicable safety regulations.
- j. Play areas must be on an accessible route with accessible entrance point.

### 3. Signage

- a. A temporary **construction project sign** (4'x8') shall be erected onsite at time of construction start when Minnesota Housing is the Lead Lender. It shall contain development name, Minnesota Housing logo (refer to Minnesota Housing's website), names other funders (or their logos – please confirm), Equal Housing Opportunity logo, Owner's name, General Contractor's name, Architect's name, and leasing information/phone number. If a temporary **construction project sign** is provided when Minnesota Housing is not Lead Lender, it shall contain Minnesota Housing's logo.
- b. A permanent **development sign** shall be provided and installed onsite. It shall provide name of development, Equal Housing Opportunity logo, and leasing information/phone number.

### 4. Landscaping

- a. If providing landscaping, a landscape plan prepared by either an architect or landscape architect is required indicating minimal tree and shrub quantities in accordance with the Green Communities Criteria 3-3.

## B. **Building Design**

The building design or rehabilitation work scope shall be reasonably appropriate for the intended site, resident population, and anticipated market.

### 1. Laundry

- Common laundry is required unless laundry equipment and hookups are provided in each dwelling unit.
- If common laundry, one (1) washer and one (1) dryer must be provided for every twelve (12) dwelling units. Provide folding table and seating area.
- If laundry equipment is provided in each dwelling unit, stackable equipment is acceptable, as is coin-operated equipment.

## 2. Elevator

- The maximum length of travel from any dwelling unit to an elevator shall not exceed two hundred fifty (250) lineal feet.
- The number of required elevators in each building shall be dictated by the number of stories above grade as follows:
  - (3 – 5) stories above grade: one (1) elevator required.
  - (6 – 9) stories above grade: two (2) elevators required.
  - (>9) stories above grade: consult Minnesota Housing.

## 3. Dwelling Unit

### a. Living Room

- Least dimension shall be 11'-6" and appropriately sized for anticipated household size.
- Must have window (or glass patio door) to exterior for natural lighting.
- Exception: Efficiency Dwelling Unit /Single Room Occupancy (SRO)

### b. Primary or Master Bedroom

- Least Dimension shall be 10'-0"
- Least square footage shall be 115 sq. ft..
- Window to exterior for natural lighting.
- Closet (5 lineal ft. of net rod/shelf length).
- Door and walls to ceiling for privacy.
- Exception: Efficiency Dwelling Unit/Single Room Occupancy (SRO)

### c. Secondary Bedroom(s)

- Least dimension 9'-6".
- Least square footage shall be 100 sq. ft..
- Window to exterior for natural lighting.
- Closet (4 lineal ft. of net rod/shelf length)
- Door and walls to ceiling for privacy.
- Exception: Efficiency Dwelling Unit/Single Room Occupancy (SRO)

### d. Kitchen

- Kitchen countertop work area. Minimum length shall be 6'-0" measured along the front footage (excluding sink and appliances) for one bedroom dwelling units, 7'-0" for two and three bedroom dwelling units, and 8'-0" for larger dwelling units.
- Snack bar or eat-in kitchen area. (Required in three bedroom and larger dwelling units.) Snack bar shall be 4'-0" long (minimum).
- Range/oven in all dwelling units. All units with two or more bedrooms must be equipped with 30" wide range/self-cleaning oven. All other units shall be equipped with 24" (min.) range/self-cleaning oven. Avoid locating range in corner or at the end of the counter. A protective shield must be provided for the section of wall directly behind all ranges and on any abutting partition. Protective shields shall either be high-pressure plastic laminate, enameled steel or stainless steel.

- “Frost Free” refrigerator/freezer with 15” minimum wide counter on latch side. 14 cu. ft. (min.) for one bedroom and smaller dwelling units. Appropriately sized for intended household for larger dwelling units.
- Millwork shall have solid wood face-frames, doors, and drawer fronts. Drawer-box construction shall have dovetail or reinforced joint construction.
- Hard-surface flooring.

e. Dining

- Designated dining room/area distinct from living room is required in 2-bedroom and larger dwelling units. The dining room/area must be appropriately sized for the intended household size and accommodate the following:
  - Table w/ four (4) chairs: 2-bedroom dwelling units
  - Table w/ six (6) chairs: 3-bedroom dwelling units
  - Table w/ seven (7) chairs: 4-bedroom dwelling units or larger
- Must have window or opening to living room.
- Hard-surface flooring is strongly encouraged.
- Exceptions:
  - An eat-in kitchen may be substituted for dining room/area as long as kitchen and dining area are appropriately sized for the intended household size plus two (2) guests.
  - A 4’ long snack bar located on rear side of kitchen countertop may be used in lieu of designated dining room/area in 1-bedroom and smaller dwelling units.

f. Bathroom

- Minimum requirements:
  - (1) bathroom: 2-bedroom and smaller dwelling units
  - (1 ½) bathrooms: 3-bedroom dwelling units
  - (1 ¾) bathrooms: 4-bedroom and larger dwelling units
- Definitions:
  - Bathroom: (vanity, water closet, and tub w/ showerhead)
  - (½) Bathroom or Powder Room: (vanity and water closet)
  - (¾) Bathroom: (vanity, water closet, and shower)
- In 3-bedroom or larger dwelling units, Minnesota Housing encourages main bathroom to be compartmentalized for simultaneous, multiple use.
- Flooring:
  - Ceramic tile, seamless sheet vinyl flooring, or other water resistant/repellant flooring
- Minimum Accessories:
  - Medicine cabinet (at least one per dwelling unit), towel bar(s) (within reach of lavatory and tub/shower), toilet paper holder, shower curtain rod (if applicable), and mirror.

g. Storage Space/closets

- Entry coat closet is required for 1-bedroom or larger dwelling units.
- Designated linen/towel storage space is required.

- General storage space for household cleaning supplies, vacuum, etc. is required.
- Conventional, residential grade, bi-fold doors and hardware package are not acceptable in new construction. Swinging doors are preferred. (Rehabilitation: Swinging doors wherever economically feasible.)

#### 4. Patio and Entrance Slabs

- a. Stoop/footing frost protection required at all entrance slabs.
- b. Where soils are frost susceptible, stoop/footing frost protection required at all patio slabs.
- c. ¼" per foot maximum slope.
- d. Protect front entrance from rain/snow accumulation. (i.e.: overhang)
- e. Patio slab shall be accessible in all dwelling units marketed as accessible/barrier free.

### C. Mechanical and Electrical Systems

Minnesota Housing reserves the right to require independent technical analysis of any or all building components to determine life expectancy and anticipated ongoing lifecycle costs, as well as a maximum of 10-year payback on energy-efficient investment premiums. A qualified Energy Auditor or other qualified professional may be required to perform an Energy Audit or Cost Benefit Analysis to identify operational cost-saving opportunities.

If Energy Conservation Improvement Program (CIP) resources are available, we encourage exploring design options with the local utility company early in the design development phase.

#### 1. Plumbing Systems

- a. All kitchen sinks shall be double compartment (33"x 22" min.), 7" deep minimum. Exception: Efficiency dwelling unit/Single room occupancy (SRO) with dishwasher may have single compartment sink.
- b. Disaster drain pan shall be provided under any water heater and clothes washer located above ground level.
- c. Water softening is required where the hardness exceeds 14 grains except where special circumstances exist. The system must conform to the following:
  - Unsoftened water must be provided to all hose bibs and the cold water tap of each kitchen sink. All other water – hot and cold – is to be softened when water softening is required.

#### 2. Heating, Ventilating, and Air-Conditioning Systems

- a. Bathroom exhaust fans shall be Energy Star-labeled. They shall exhaust to the outdoors and operate either continuously or when the light is turned on or with a humidistat or timer.
- b. Exhaust ductwork for clothes dryers shall be rigid type and vented to outside.
- c. Kitchens shall be equipped with either Energy Star-labeled power vented fans or Energy Star-labeled range hoods. All fans shall exhaust to the outdoors.

Kitchen exhaust hood may be non-ducted only if it is determined infeasible to do so by the project's Mechanical Engineer and there is at least one continuously operating bathroom exhaust fan.

### **3. Electrical Systems**

- a. Ceiling or wall mounted light fixture in all bedrooms.
- b. Hard-wired carbon monoxide (CO) alarm(s) meeting requirements of Underwriters Laboratories, Inc., or approved by the International Conference of Building Officials, shall be furnished and installed in locations as required by 2006 Legislation.
- c. Task lighting above kitchen range and sink.
- d. Each dwelling unit shall be capable of receiving hi-speed Internet access.
- e. Rehabilitation: Smoke detectors meeting requirements of Underwriters Laboratories, Inc., or approved by the International Conference of Building Officials, shall be furnished and installed in all areas as required for new construction. At least one smoke detector in each dwelling unit shall be hardwired (equipped w/ battery backup) and audible from sleeping rooms. Ground-fault circuit-interrupter protection shall be provided for receptacles in locations as required by applicable regulations for new construction. CO alarms shall be installed in compliance with 2006 Legislation.

### **4. Building Components**

- a. Millwork: Shall have solid wood face-frames, doors, and drawer fronts. Drawer-box construction shall have dovetail or other approved reinforced joint construction.
- b. Windows and doors: Must be Energy Star qualified.
- c. Low-slope roofing: All replacement and low construction roofing shall have a 1/4 inch per foot (finished slope) unless otherwise approved by Minnesota housing staff architect and building official.
- d. Window coverings: All windows in all buildings (new construction and rehabilitation) shall be furnished with window coverings for privacy and control of heat gain/solar shading.